

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)



Applicant's or agent's file reference P02/186VERG		FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/EP 03/09680	International filing date (day/month/year) 01.09.2003	Priority date (day/month/year) 07.10.2002	
International Patent Classification (IPC) or both national classification and IPC C07D313/08			
Applicant MERCK PATENT GMBH			

- This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
- This REPORT consists of a total of 5 sheets, including this cover sheet.

☒ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

 These annexes consist of a total of 6 sheets.
- This report contains indications relating to the following items:

I	<input checked="" type="checkbox"/>	Basis of the opinion
II	<input type="checkbox"/>	Priority
III	<input type="checkbox"/>	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
IV	<input type="checkbox"/>	Lack of unity of invention
V	<input checked="" type="checkbox"/>	Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
VI	<input type="checkbox"/>	Certain documents cited
VII	<input type="checkbox"/>	Certain defects in the international application
VIII	<input type="checkbox"/>	Certain observations on the international application

Date of submission of the demand 08.04.2004	Date of completion of this report 06.09.2004
Name and mailing address of the International preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized Officer Samsam Bakhtiary, M Telephone No. +49 89 2399-8556 

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. **PCT/EP 03/09680**

I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

Description, Pages

1-14 as originally filed

Claims, Numbers

1-14 as originally filed

Drawings, Sheets

1/6-6/6 received on 21.07.2004 with letter of 15.07.2004

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
 - ☐ the language of publication of the international application (under Rule 48.3(b)).
 - ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).
3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:
- ☐ contained in the international application in written form.
 - ☐ filed together with the international application in computer readable form.
 - ☐ furnished subsequently to this Authority in written form.
 - ☐ furnished subsequently to this Authority in computer readable form.
 - ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
 - ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.
4. The amendments have resulted in the cancellation of:
- ☐ the description, pages:
 - ☐ the claims, Nos.:
 - ☐ the drawings, sheets:

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5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	
	No: Claims	1-14
Inventive step (IS)	Yes: Claims	
	No: Claims	1-14
Industrial applicability (IA)	Yes: Claims	1-14
	No: Claims	

2. Citations and explanations

see separate sheet

Re Item V

Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Reference is made to the following document:

D1: FR-A-2 787 789

2. **Novelty** (article 33.2 PCT)

a) concerning claims 1,3,13,14

The subject matter of claim 1 which consists in derivatives of benzoxepine cannot be considered as novel when $n=0$ or 2, and when $n=1$ the compounds containing an R being different than methoxy group.

Examples 21b,22b and 32b of document D1 anticipate the subject matter of claims 1,3,13 and 14.

The fact that the wording of the claim contains "metastable form" does not render the said compounds novel. It is necessary that metastable form of a compound distinguishes itself from the stable form by technical features (such as IR, X-ray diffraction...).

b) concerning claims 2,4-12

As far as subject matter of claim 2 is concerned, the Applicant is invited to provide IR spectra, X-ray diffraction of the stable corresponding form of the compounds of claim 2 and this in order to put forward that the stable and metastable form have distinct crystalline structures, if such evidence is not provided, then novelty issue may be reconsidered.

The Applicant with his letter of 15.07.2004, provided experimental data's which in fact were disclosed in the in the original filing (priority).

These data's concern the metastable form, in our written opinion, we drew the attention of the Applicant to the fact that the data's for the stable form was necessary in order to put forward distinctive features for recognising novelty requirements.

Therefore novelty for claims 2,4-12 cannot be recognised.

2. Inventive step (article 33.3 PCT)

Since novelty cannot be recognised for the claimed subject matter, then this subject matter cannot be considered as inventive.

In the european phase, in case novelty can be re-established by appropriate amendments or convincing experimental data's, then inventivity could be recognised for this novel subject matter for the following reasons:

The problem to be solved by this application can be regarded as to put forward benzoxepine derivatives having improved dissolution kinetics.

The proposed solution, namely making a metastable form seems to solve the problem. The comparative tests disclosed in the description of this application indeed show that the compounds in the metastable form possess specific surfaces superior than those in stable form, such improvement was not obviously derivable from the state of the art.